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(54) Title: COMPOSITE CATALYST FOR THE SELECTIVE OLIGOMERIZATION OF LOWER ALKENES AND THE PRO-DUCTION OF HIGH OCTANE PRODUCTS

(57) Abstract: The present invention relates to a) a catalytic composite comprising a support structure and a catalytic species that (57) Abstract: The present invention relates to a) a catalytic composite comprising a support structure. The present invention relates to a) a catalytic composite on the support structure, b) a process for the selective oligomerization of lower alkenes and mixtures of alkenes, which is deposited on the support structure, b) a process for the selective oligomerization of lower alkenes and mixtures of alkenes, which is deposited on the support structure, b) a process for the selective oligomerization of lower alkenes and mixtures of alkenes, which process comprises contacting the lower alkenes with the catalytic composite in a catalytic distillation apparatus and under catalytic distillation conditions, and c) a process for producing high octane products, which process comprises hydrogenating one or more catalytic distillation apparatus and under catalytic distillation conditions.